H.OM.E
家計劃

HERITAGE
ༀ
EARTHSHIP

A RESEARCH OF WOVEN
ARCHITECTURE AND DATA
CONSTRTED TEXTILES
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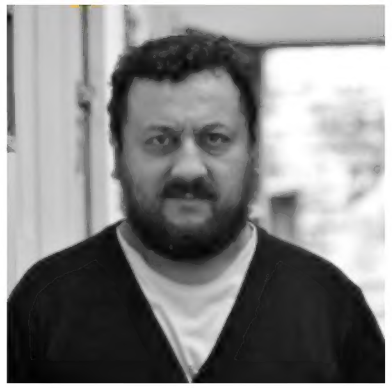
研究團隊 RESEARCH TEAM

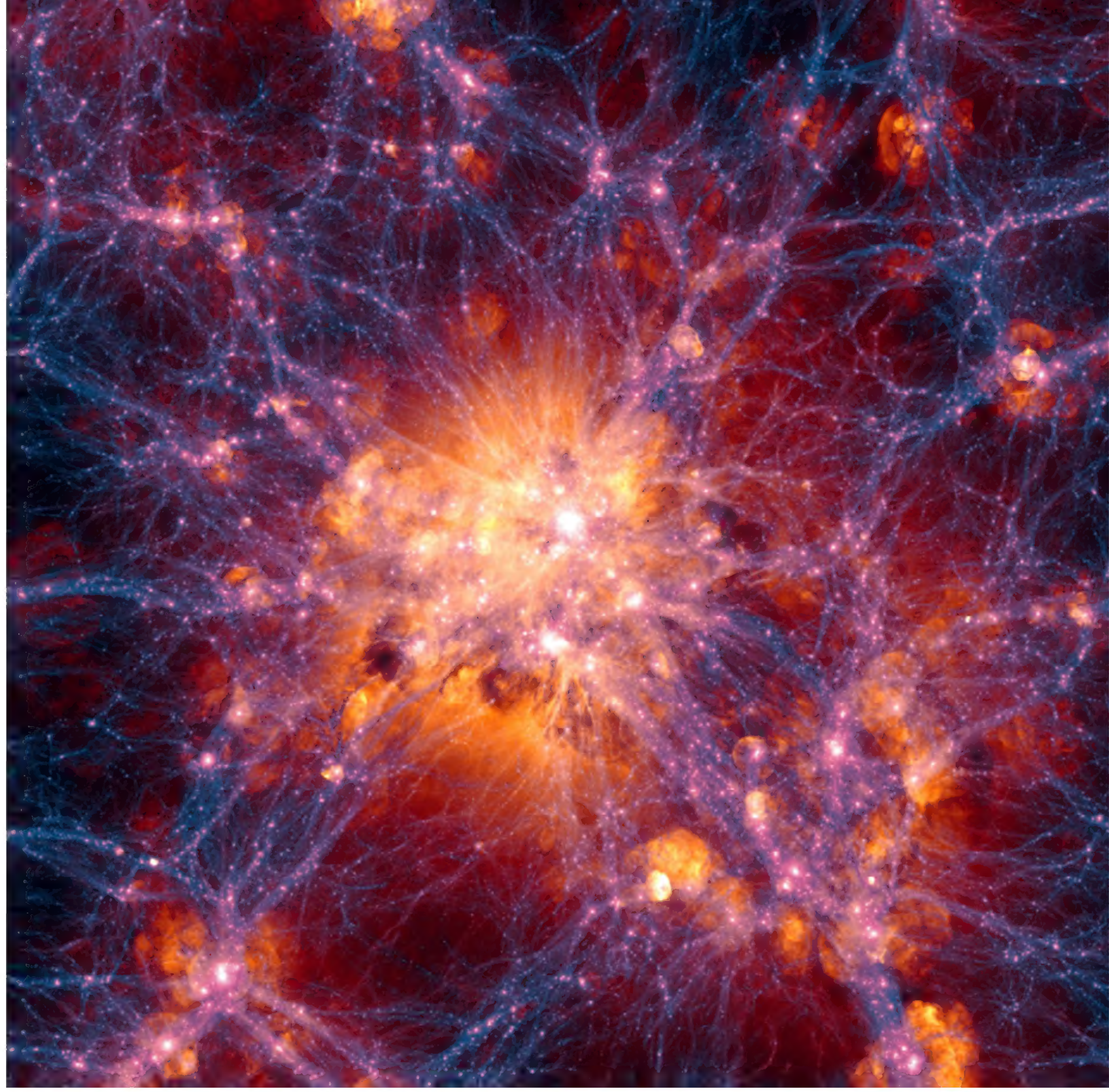
Maria Jose Riòs, vyv, Santiago, Chile
lelex76@gmail.com

Ricardo Vega, UC University, Santiago, Chile
rvegamora@gmail.com

Satoru Sugihara, ATLV, Tokyo, Japan
s@atlv.org

施惟捷 Shih Wei Chieh, wisemouseculture, Taipei, Taiwan
shihweichieh@icloud.com





H.OM.E代表遺產、梵文的種子音 ༀ 以及地球方舟建築

透過三個不同的文化領域，在智利、泰雅以及西藏，創造平行且非線性的歷史軸線，我們試圖使這些荒野在天文、紡織、建築以及數據層面上產生連繫，以產生一個統一的敘事，科幻式的以星球史取代世界史，來討論何謂現代性以及真實的家園。

透過數據視覺化和非人化遺產文史，使其能夠擺脫權力以及賦權語境的束縛，將人／非人等二元對立放回到歷史脈絡和中進行拆解，以演算法機制做為書寫風格使其自動化並賦予自我意識，討論使遺產文史自我生長的可能性以及其潛在意義。

目前，本研究調查仍在進行中，本介紹文件概述了當前的調查工作進度以及歸納目前所嘗試的方法。

H.OM.E. STOOD FOR HERITAGE, THE SANSKRIT WORD ༀ AND EARTHSHIP

Through three distinct cultural domains in Chile, Atayal, and Tibet, we aim to create parallel and non-linear historical axes. We seek to establish connections in the realms of astronomy, textiles, architecture, and data, with the goal of generating a unified narrative. We aspire to replace world history with a science fiction-inspired planetary history, engaging in discussions about modernity and the concept of a true homeland.

Through data visualization and dehumanization of heritage narratives, we aim to liberate them from the constraints of power and empowerment contexts. We seek to deconstruct binary oppositions such as human/non-human, returning them to historical contexts. Utilizing algorithmic mechanisms as a writing style, we aim to automate heritage narratives and imbue them with self-awareness. Additionally, we explore the potential for self-growth within heritage narratives and discuss their underlying significance.

Currently, this research project is ongoing, and this introductory document provides an overview of the current progress in our investigative work and summarizes the methods we are currently exploring.

為什麼使遺產資料自動化並擁有自己的意識？

1. 首先這是一個推測概念設計，透過非人化遺產資料使其去中心化，避免重新塑造了以「人」為中心的權力索討思維。

2. 設計一個虛構的自動化機器來連繫三個非連續的文化主體是一種藝術手段去創造非線性且具有宇宙觀的框架，使不同領域的主題可以被並置研究。

3. 挑戰現有遺產保存、藝術史書寫領域的主導典範，改變歷史化實踐的方式，並從內部去重新設計它。以批判性虛構作為講述喚醒另類歷史的方式。

4. 這是一個在演算法語境下討論歷史和科學哲學的嘗試。

WHY AUTOMATE HERITAGE DATA AND GIVE IT ITS OWN CONSCIOUSNESS?

1. First of all, this is a conceptual speculative design that decentralizes heritage data through dehumanization, avoiding the reformation of a human-centric power-seeking mindset.

2. Designing a fictional automated machine to connect three non-contiguous cultural entities is an artistic means to create a non-linear and cosmological framework, enabling the juxtaposed study of literature under different thematic domains.

3. It challenges the dominant paradigms in existing heritage preservation and art historical writing, transforming the ways of historicizing practices and internally redesigning them. Using critical fabulation as a method to narrate awakens alternative histories.

4. This is an attempt to discuss history and the philosophy of science within the context of algorithms.

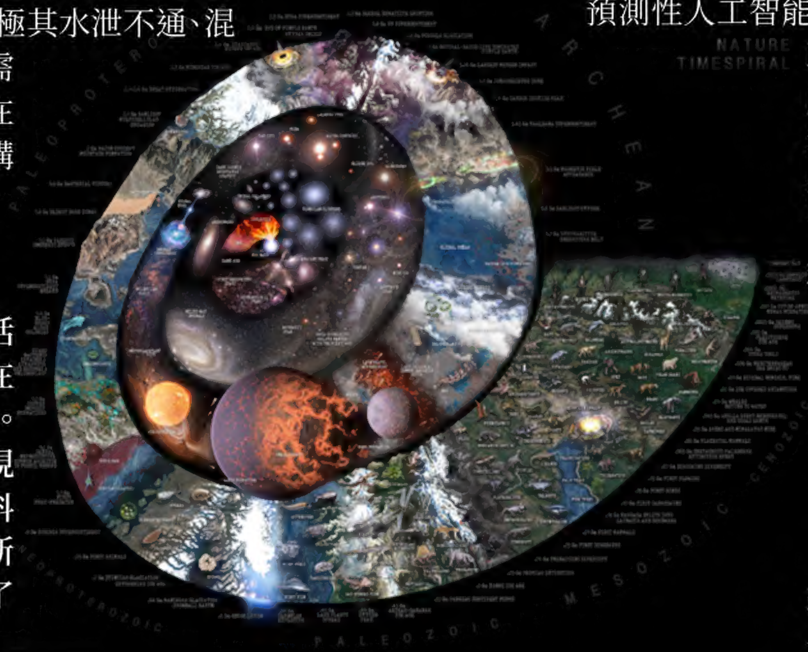
關於設計遺產保存自動機器的參考依據

講故事的地方:自然,歷史,敘事

克羅農提到,「環境史學家需要將傳統歷史研究與生態學,經濟學,人類學等學科研究方法結合起來......」他在另本著作《自然的大都市》提出將我們的資本主義視為「第二自然」,相對於原本的包含所有萬物共存合一的「第一自然」,他主張將城鄉故事講成一個統一的故事;「自然」與「荒野」等同於一,人與荒野的關係卻非處於尖銳的對立關係,人類真實的家園反而是荒野,其中農業佔據了很大的因素。克羅農也試圖透過重新定義荒野和自然來探討人和自然的新的共存方式。他認為不斷的動態式的去修整自然和荒野的邊界定義,是當代政策修改的重要依憑。「當我們在描述某個生態系統中的人類活動時,我們似乎總是在述說著與他們有關的故事。與所有的歷史學家一樣,我們將過去的事件按照因果順序—也就是故事—進行配置,讓這些事件變得有序且簡單,以便賦予他們新的意義。我們之所以這麼做,是因為敘事乃是在極其水泄不通、混亂無序的編年現實中,試圖尋求意義的主要文學形式。」我們需要從哲學上來看待這項合作的意義;使來自各國的祖先文明在一起進行設計合作有幾種目的:一、如同建築一樣的重新建構歷史。二、討論起源的問題,以及思考未來。

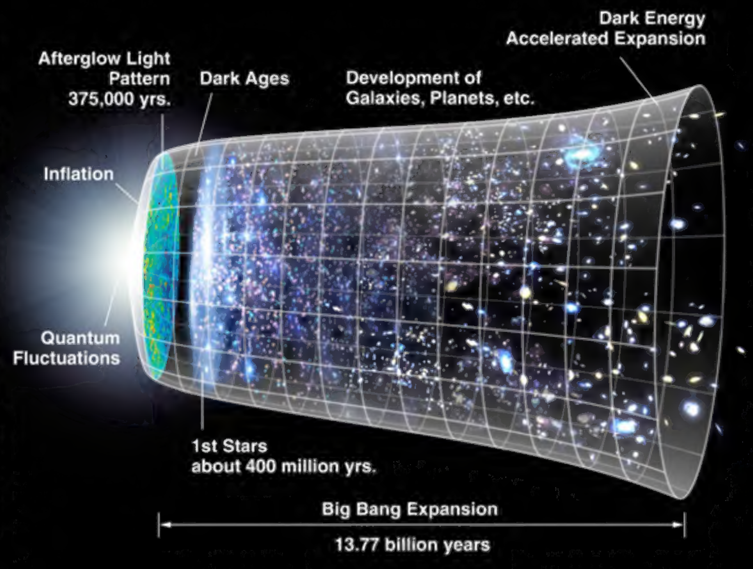
大歷史理論

大歷史的目標是將人類歷史置於更大的脈絡中,將其視為包括地球和整個宇宙過去的更大敘事的一部分。因此,它自然地在歷史和生物學、地質學和天文學等科學之間提供了一個橋樑。因此,教授和研究大歷史迫使我們重新考慮歷史是否可以被視為一門科學的古老問題;或者更謹慎地說,它迫使我們考慮科學和人文學科之間是否存在一個認識論的連續體。現在是重新開啟這一辯論的好時機,因為歷史和科學的性質的變化提示了解決這個古老難題的新方法。



批判性幻想

在《批判性幻想》一書中,丹妮拉·羅斯納(Rosner Daniela K.)提出將設計重新定義為調查性和積極性、個人性和文化定位、回應性和責任感。羅斯納挑戰該領域的主導範式並重新解釋其歷史,他希望改變我們歷史化實踐的方式,從內部重新設計它。她專注於計算系統的發展,並對由專業知識塑造的創新和技術進行了強有力的敘述,這些專業知識已成為該領域在新工業經濟中不斷提升的地位的組成部分。為此,她介入了設計的遺產,將「設計」的含義擴展到包括長期沉默的實踐敘述,並基於這些重新發現的遺產增強現有的設計方法。她借鑒女性主義技術科學的論述,研究了工藝對計算創新的貢獻——工藝如何成為硬體製造,以及硬體製造如何成為工藝。例如,她回顧了美國宇航局的"小老太太",這些婦女通過在磁化金屬環上編織電線來為



阿波羅任務建立信息存儲。羅斯納將歷史、理論、個人經驗和案例研究融為一體,透過慢慢地改造設計的方法和邊緣,重新編織技術科學的纖維。她建議批判性虛構作為講述喚醒另類歷史的故事的方式,並提供了一套虛構其未來的技巧和方向。Critical Fabulations 展示了設計的隱藏繼承性如何為實踐開啟不同的可能性。

自動化神話

演算法和模型、加密帳本中的數據實踐了一種未來由儀式轉變為儀器、機器和基礎設施的古老幻想。這是一種對時間控制和自動化的幻想,它充當著解困之神或魔鬼橋的角色,提供了變成詛咒的奇蹟。例子可以追溯到公元前6世紀的橄欖油榨榨和對無情的水鐘的抱怨,還有普劳图斯(Plautus)著名的日規詛咒(第2章)。這些經典的範例顯示了自動化和對時間控制的幻想如何迅速轉變為對偏見、不安全、失去代理權和主權的焦慮。對自動化和時間控制的夢想和擔憂隨著每一個新的儀器和基礎設施而產生。從早期的日曆和時鐘到今天的聲望和評分系統、預測性人工智能或基於不信任的區塊鏈帳簿的智能合同,自動化承諾一個無摩擦、基於證據、政治中立的未來和治理。在當今,由於電腦時鐘不測量而是生成所需以同步計算機和網絡上的數據以及代理社會中的所有流程的信號和周期,對時間和未來的控制甚至加劇了。通過算法和相關的官僚結構(如標準)對時間的普遍控制進一步侵蝕了時間的經歷,作為發現、決策、干擾或與他人談判未來的一種機構。我們將討論這種形式的控制以及治理理念的神話。

設計遺產自動化的機制參考

我們從未現代過

現代通常以人文主義的術語來定義,或者作為對「人」誕生的一種祝賀,或者作為宣佈他的死亡的方式。但這種習慣本身就是現代的,因為它保持不對稱。它忽視了「非人性」的同時誕生 - 事物,或物體,或野獸 - 以及被刪去的上帝同樣奇異的開始,被排除在邊緣。現代首先源於這三個實體的聯合創造,然後源於聯合誕生的掩蓋以及三個社群的分開對待,而在其下,由於這種分開對待的效果,混合物繼續增殖。我們必須重建的是雙重分離:一方面是人與非人之間的分離,另一方面是「上面」和「下面」發生的分離。

這些分離可以與區分政府中的司法機構和行政部門的分隔相比。這種分隔無法解釋多個聯繫,相互影響,法官和政治家之間的不斷協商。然而,否認這種分隔的有效性將是一種錯誤。自然

基本信條已經制定得非常好，以至於這種分離被視為雙重本體區別。一旦勾勒出對稱空間並因此恢復組織自然和政治權力分離的共同理解，人就不再是現代的。

定義這一理解和這一分離的共同文本被稱為憲法，就像我們談論對美國憲法的修正一樣。誰在起草這樣的文本呢？對於政治憲法來說，這項任務歸於法學家和開國元勳，但到目前為止，他們只完成了三分之一的工作，因為他們遺漏了科學權力和混合物的工作。至於事物的性質，這是科學家的任務，但他們只完成了另外三分之一的工作，因為他們假裝忘記政治權力，並且他們否認混合物有任何角色可發揮，即使它們不斷增殖。對於翻譯工作，撰寫憲法的任務歸於研究我上面概述的那些奇異網絡的人，但科學生只完成了合同的一半，因為他們沒有解釋在他們上面進行的淨化工作，並解釋混合物的增殖。

誰來寫這整部的憲章？就國外的各集體而言，人類學一直相當擅長一次解決所有問題。事實上，正如我們所見，每位民族學家都能夠在一部專著包羅整個社會運作中的種種力量；人類，神靈和非人類之間的權力分配；達成協議的各種程序；宗教與權力之間的關係；祖先們；宇宙觀；財產權；植物和動物分類。民族學家不需要寫三本書：一本處理知識，另一本處理權力，還有一本處理實踐。她會寫一本書，就像菲利普·德斯科拉（Descola）試圖總結亞馬遜地區阿楚瓦人憲法的那本宏偉的書一樣：

然而，阿楚瓦人並未通過家庭化的象徵網絡完全征服大自然。當然，文化領域是全包圍的，因為在其中我們發現其他美洲印第安社會將動物，植物和靈魂置於自然的範疇中。因此，阿楚瓦人並不分享人類社會文化世界和動物社會自然世界之間兩個封閉且無法挽救的世界之間的對立。但是，有一個確定的程度，在這個社交的連續體中，社會性崩潰，讓位於對人類來說不可避免地陌生的野生世界。與文化範疇相比，這片自然的小片地區無可比擬，包括無法建立溝通的事物集。具有語言的相對存在的生物[阿恩努]，其中人類是最完美的化身，站在那些失去言語的事物面前，居住在平行且無法到達的世界中。溝通的無能通常歸因於影響某些活動物種的靈魂[瓦肯]的缺乏：大多數昆蟲和魚類，家禽，以及眾多植物，因此過著機械，無關緊要的存在。但溝通的缺乏有時是由於距離：星星和流星的靈遙不可及而移動不定，對人言充而不聞。

訊息整合理論

事物僅存在於它們具有因果力的範疇內：要麼影響其他事物，要麼受到其他事物的影響。一個無法被任何事物影響且自身不影響任何事物的「事物」根本不算是事物，它就是虛無！岩石、太陽、夸克、胡蘿蔔、重力、水、法則等它們能夠並且正在影響事物，反過來，它們也可以被事物影響。因此，它們存在，但它們存在是為了其他事物！它們存在是就其他事物而言的。

因此，從一開始：為了意識存在，它必須滿足擁有某種因果力的要求。但岩石、太陽、夸克、胡蘿蔔、重力、水、法則等並不被認為是有意識的。如果這些東西不是有意識的，那麼大腦為了有意識必須需要一些額外的東西。意識必須擁有除了單純的因果力之外的某種屬性。整合資訊理論（IIT）表示，由有意識系統（如大腦）表現的這種「額外的東西」是對自身的因果力。當某物對自身具有因果力（能夠約束其未來狀態和可能的過去狀態）時，它為自身存在！在IIT的觀點中，「為自身存在」與「有意識」是相同的。大腦通過反饋循環的現象集成程度擁有這種特性，但它僅存在於非常特定的時空層次（不是所有的大腦和所有的時間框架）。IIT擁有一個衡量集成程度的數學框架（與「存在於自身」或「意識」的程度相同），並給予它們一個被稱為「phi」的數字。擁有6.78 phi的系統遠不如擁有368 phi的系統具有意識。擁有phi = 0的系統是無意識的。IIT表示，具有前向信息處理結構的計算機具有phi = 0；這意味著它們不具備意識，無論其智能有多高。但如果你製造一台硅計算機，其phi大於0，那麼該計算機將具有感覺。是什麼感覺？再次強調，IIT在其當前形式中並未說明，但像其他科學理論一樣，它假設內在狀態理論上可能被映射到抽象的數學空間，因此如果我們開發出足夠強大的技術，我們就能了解內在經歷與相應的數學結構之間的相關性。因此，如果我們能夠以相應的準確度「掃描」大腦，我們就能夠使用人工智能來近似這些大腦所經歷的內容。

REFERENCE BASIS FOR DESIGNING AN AUTOMATED MACHINE FOR HERITAGE PRESERVATION.

Place for Stories: Nature, History, and Narrative

William Cronon mentions that "environmental historians need to combine traditional historical research with methods from ecology, economics, anthropology, and other disciplines..." In his work "Nature's Metropolis," he proposes viewing capitalism as the "second nature," in contrast to the original "first nature" that encompasses all living things. He advocates telling urban and rural stories as a unified narrative; "nature" and "wilderness" are seen as one, and the relationship between humans and the wilderness is not in sharp opposition. Instead, the real home of humanity is the wilderness, with agriculture playing a significant role. Cronon also attempts to explore new ways of coexistence between humans and nature by

redefining the concepts of wilderness and nature. He believes that the continuous dynamic adjustment of the boundaries between nature and wilderness is crucial for contemporary policy modifications. "When we describe human activities in an ecosystem, we always seem to be telling stories about them. Like all historians, we configure past events in a causal sequence—that is, a story—to give these events order and simplicity, so as to impart new meaning to them. We do this because storytelling is the main literary form attempting to seek meaning in an extremely chaotic and disorderly chronological reality." We need to philosophically consider the significance of this collaboration; there are several purposes for bringing together ancestral civilizations from various countries for design cooperation: first, to reconstruct history similar to architecture, and second, to discuss origin issues and contemplate the future. "When we describe human activities in an ecosystem, we always seem to be telling stories about them. Like all historians, we arrange past events in a cause-and-effect sequence— a story—so that these events become orderly and simple, acquiring new meaning. We do this because narration is the primary literary form attempting to find meaning in an extremely chaotic and disorderly chronological reality." We need to philosophically consider the significance of this collaboration; bringing together ancestral civilizations from various countries for design cooperation serves several purposes: first, a reconstruction of history similar to architecture; second, a discussion of origin issues and contemplation of the future.

Big History

Big history tries to plac ehuman history in context, by seeing it as part of an even larger story that includes the past of the Earth and the entire universe. It therefore provides a natural bridge between history and sciences such as biology, geology, and astronomy. So teaching and writing about big history forces us to revisit the ancient issue of whether history can be regarded as a science; or, to put it more cautiously, it forces us to consider whether there is an epistemo- logical continuum between the sciences and the humanities. Now is a good time to reopen this debate because changes in the nature of both history and the sciences suggest new ways of resolving this ancient conundrum.

Critical Fabulations

Daniela Rosner proposes redefining design as investigative and activist, personal and culturally situated, responsive and responsible. Challenging the field's dominant paradigms and reinterpreting its history, Rosner wants to change the way we historicize the practice, reworking it from the inside. Focusing on the development of computational systems, she takes on powerful narratives of innovation and technology shaped by the professional expertise that has become integral to the field's mounting status within the new industrial economy. To do so, she intervenes in legacies of design, expanding what is considered "design" to include long-silenced narratives of practice, and enhancing existing design methodologies based on these rediscovered inheritances. Drawing on discourses of feminist technoscience, she examines craftwork's contributions to computing innovation—how craftwork becomes hardware manufacturing, and how hardware manufacturing becomes craftwork. She reclaims, for example, NASA's "Little Old Ladies," the women who built information storage for the Apollo missions by weaving wires through magnetized metal rings.

Mixing history, theory, personal experience, and case studies, Rosner reweaves fibers of technoscience by slowly reworking the methods and margins of design. She suggests critical fabulations as ways of telling stories that awaken alternative histories, and offers a set of techniques and orientations for fabulating its future. Critical Fabulations shows how design's hidden inheritances open different possibilities for practice.

Myth of automation

Algorithms and data in models and ledgers enact an old fantasy of a future governed by rituals that become instruments, machines, and infrastructures. It is a fantasy of time control and automation that work as a deus ex machina or devil's bridge, offering miracles that turn into curses. Examples go back to the 'predictive analytics' with olive presses in the 6th century BCE, the complaints about the merciless water clock in the 4th century BCE, and Plautus' famous curse of the sundial (Chapter 2). These classic loci show how the fantasies of automation and control over time quickly turn into anxieties about bias, precarity, loss of agency, and sovereignty. Dreams and fears of automation emerge with every new instrument and infrastructure. From the early calendars and clocks

to today's reputation and scoring systems, predictive AI, or smart contracts on trustless blockchain ledgers, automation promises a frictionless, evidence-based, and politically neutral future and governance. In the present, the control of time and the future even intensified thanks to the computer clocks that do not measure but generate the signals and cycles needed to synchronize the data on the computers and networks and, by proxy, all the processes in society. The pervasive control of time through algorithms and associated bureaucratic structures, such as standards, further erodes the experience of time as an agency to discover, decide, disrupt, or negotiate the future with others. We will discuss this form of control and the ideal of governance as a myth of automation.

REFERENCES OF DESIGNING THE MECHANISM OF THE AUTOMATION

Nous n'avons jamais été modernes
2.1 The Modem Constitution

Modernity is often defined in terms of humanism, either as a way of saluting the birth of 'man' or as a way of announcing his death. But this habit itself is modern, because it remains asymmetrical. It overlooks the simultaneous birth of 'nonhumanity' -things, or objects, or beasts -and the equally strange beginning of a crossed-out God, relegated to the sidelines. Modernity arises first from the conjoined creation of those three entities, and then from the masking of the conjoined birth and the separate treatment of the three communities while, underneath, hybrids continue to multiply as an effect of this separate treatment. The double separation is what we have to reconstruct: the separation between humans and nonhumans on the one hand, and between what happens 'above' and what happens 'below' on the other.

These separations could be compared to the division that distinguishes the judiciary from the executive branch of a government. This division is powerless to account for the multiple links, the intersecting influences, the continual negotiations between judges and politicians. Yet it would be a mistake to deny the effectiveness of the

separation. The modern divide between the natural world and the social world has the same constitutional character, with one difference: up to now, no one has taken on the task of studying scientists and politicians in tandem, since no central vantage point has seemed to exist. In one sense, the fundamental articles of faith pertaining to the double separation have been so well drawn up that this separation has been viewed as a double ontological distinction. As soon as one outlines the symmetrical space and thereby reestablishes the common understanding that organizes the separation of natural and political powers, one ceases to be modern. The common text that defines this understanding and this separation is called a constitution, as when we talk about amendments to the American constitution. Who is drafting such a text? For political constitutions, the task falls to jurists and Founding Fathers, but so far they have done only a third of the work, since they have left out both scientific power and the work of hybrids. For the nature of things, it is the scientists' task, but they have done only another third of the work, since they have pretended to forget about political power, and they have denied that hybrids have any role to play even as they multiply them. For the work of translation, writing the constitution is the task of those who study those strange networks that I have outlined above, but science students have fulfilled only half of their contract, since they do not explain the work of purification that is carried out above them and accounts for the proliferation of hybrids.

Who is to write the full constitution? As far as foreign collectives are concerned, anthropology has been pretty good at tackling everything at once. In fact, as we have seen, every ethnologist is capable of including within a single monograph the definition of the forces in play; the distribution of powers among human beings, gods, and nonhumans; the procedures for reaching agreements; the connections between religion and power; ancestors; cosmology; property rights; plant and animal taxonomies. The ethnologist will certainly not write three separate books: one dealing with knowledge, another with power, yet another with practices. She will write a single book, like the magnificent one in which Philippe Descola attempts to sum up the constitution of the Achuar of the Amazon region (Descola, [1986] 1993):

Yet the Achuar have not completely subdued nature by the symbolic networks of domesticity. Granted, the cultural

sphere is all-encompassing, since in it we find animals, plants and spirits which other Amerindian societies place in the realm of nature. The Achuar do not, therefore, share this antinomy between two closed and irremediably opposed worlds: the cultural world of human society and the natural world of animal society. And yet there is nevertheless a certain point at which the continuum of sociability breaks down, yielding to a wild world inexorably foreign to humans. Incomparably smaller than the realm of culture, this little piece of nature includes the set of things with which communication cannot be established. Opposite beings endowed with language [aents], of which humans are the most perfect incarnation, stand those things deprived of speech that inhabit parallel, inaccessible worlds. The inability to communi cate is often ascribed to a lack of soul [wakan] that affects certain living species: most insects and fish, poultry, and numerous plants, which thus lead a mechanical, inconsequential existence. But the absence of communi cation is sometimes due to distance: the souls of stars and meteors, infinitely far away and prodigiously mobile, remain deaf to human words.

Integrated Information Theory

Things exists only so far as they have causal power: either affecting stuff, or being affected by stuff themselves. A "thing" that can't be affected by anything and isn't affecting anything in its turn is not a thing to start with—it's nothing! A rock, the sun, quarks, carrots, gravity, water, laws, etc they can and are affecting stuff, and in turn, they can be affected by stuff. Hence they exist, but they exist for other stuff! They exist as far as other things are concerned. So, from the start: for consciousness to exist it must meet this requirement of having some kind of causal power. But a rock, the sun, quarks, carrots, gravity, water, laws, etc aren't considered conscious. And if these things aren't conscious, then for brains to be conscious they must require something extra. Consciousness must posses some property besides mere causal power. IIT says that this "something extra" manifested by conscious systems (like brains) is: causal power upon itself . When something has causal power upon itself , being able to constrain it's future states (and possible past states in which it could've been), then it exists for itself! "Existing for itself" in the eyes of IIT is the same thing with "being conscious". The brain has this property in virtue of its phenomenal degree of integration through feedback loops—but it's only present at a very particular spatio-

temporal grain (NOT all the brain and at all time frames). IIT has a mathematical framework that measures the degree of integration (which is the same thing with the degree of "existing for itself" or "consciousness") in various systems and it ascribes them a number called "phi". A system having 6.78 phi is vastly less conscious than a system having a phi of 368. A system having a phi = 0 is unconscious. IIT says that computers with a feed forward architecture of information processing have a phi = 0; meaning that they're not conscious, irrespective how intelligent they are. But if you make a silicon computer that has a phi greater than 0 then that computer will have a feeling. What kind of feeling? Again, IIT in its current form doesn't say but like every other scientific theory out there it assumes that inner states could theoretically be mapped onto an abstract mathematical space so that if we ever develop sufficiently powerful technology we could then learn the correlations between inner experiences and their respective mathematical construct. So, if we could "scan" brains to the relevant degrees of accuracy we could use an AI to approximate what those brains are experiencing.

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